



## INSTALLATION GUIDE

### MOTORCYCLE LED LIGHT KIT

**IMPORTANT!** No two installation scenarios are the same. Accent lighting is highly subjective. Not everyone shares the same lighting or installation quality goals. Some folks are OK with twisting wires together, others want to solder and heat shrink them. Some folks are OK with running wires where they may be seen or unprotected to save money/time, others want a tidy, clean install so they wrap plastic split-loom around all exposed cables. Some folks are OK with mounting their LED strips to whatever surface they can find, others want to take the time necessary to build out appropriate mounting surfaces to provide the best lighting effect on their vehicle and maximize the longevity of their lighting system. The point is it's not possible to provide all the materials necessary for all installation scenarios on all types of vehicles to meet everyone's quality goals. Our light kits provide the essential components needed for a high-quality, functioning lighting system. Installation of our light kit to your specific vehicle will however likely require additional items to make it look, fit and work the way you want. This is particularly the case with electrical wiring, switching functionality and mounting surfaces for the LED strips. We have created a list of additional items you may need. Here's the link: <https://www.boogeylights.com/other-items-you-might-need/> . While we offer them for sale you can also find these items locally. We urge you to review this information before starting your install.

### BENCH TEST YOUR LIGHTING COMPONENTS FIRST!

We know this takes a few extra minutes, but we **STRONGLY** suggest you bench test your lights AND your controller / switches on a table before doing anything further. Test all of them. While we test every light strip and controller before shipping, bench testing your lights will eliminate the possibility of any problems with the lights or controller before mounting. It also lets you know everything is working properly. Also, the process of bench testing gives you an opportunity to understand the wiring system without interference from other wires, connectors and cables. You can use any 12vdc battery to do this (e.g. car battery, motorcycle battery, lawn tractor battery or 12vdc power supply). If you're not sure how to bench test, download this pdf:

<https://docs.boogeylights.net/?wpdmdl=1305> . Bench testing takes an extra 10 or 15 minutes. It's simple to do and can potentially save you hours of time and frustration down the road.

**Did we mention the importance of bench testing every LED strip and controller first?**

**THIS IS A GUIDE. NOT A HOW-TO.** It's simply not possible to provide detailed instructions for all installation scenarios. Far too many variables. The information in this document is intended to be used as a guide. It is not a detailed step-by-step how-to installation manual. We do not spell out every single step along the way. We cover the essential steps related to installing this kit. Beyond that we assume the installer has the skills, knowledge and tools necessary to do the work using the information we provide as a guide. You may need to vary your installation and/or make adjustments based on your vehicle. This is particularly the case with led strip mounting locations, electrical wire routing, electrical connections, electrical load sizing and switching. If you're unsure about how to do the installation – particularly the electrical components – we urge you to seek assistance from someone who has those skills.

**YOU MUST HAVE AN UNDERSTANDING OF 12V POWER.** An essential skill with installation of any Boogey Lights LED products is knowing how to correctly wire the product to a 12vdc circuit. This includes understanding the importance of having a properly sized fuse at the power source, polarity, how to properly seal an electrical connection, using properly sized wire gauge for the load, measuring voltage and measuring the additional amperage draw you're adding. If you are uncertain or unfamiliar with any of these concepts, we urge you to ask someone who has the knowledge to assist you. Electricity is unforgiving.

**MOUNTING SURFACE.** How and where you mount your LED strips will for the most part determine the longevity of your lighting system. If you mount the LED strips to smooth, clean, continuous, straight, flat surfaces as we recommend, you can expect your lighting system to last for many years

**SECURE THE POWER LEADS.** Make sure the power lead wire that connects to one end of the LED strip is firmly secured to the boat. Do not allow that power lead to move or flex at the point where it attaches to the LED strip. If you do, it will fail prematurely and is not covered under warranty.

We include wiring diagrams with each kit. Be sure to use the diagram that matches the kit configuration you purchased. You can also find these same wiring diagrams on our website for immediate download at <https://www.boogeylights.com/installation-resources/>. We also offer some **HOW-TO VIDEOS** (<https://www.boogeylights.com/how-to-videos/>). While these videos may not be specific to your ride, the installation process, concepts and wiring are the same regardless of the format.

## Suggested Install Locations

The product page of the motorcycle light kit you ordered has suggested installation locations. Some of our motorcycle light kits offer multiple light strip configurations. Please refer to the website product page (<https://www.boogeylights.com/motorcycle-led-kits/>) if you don't recall what you ordered. While these suggested installation locations are a good starting point, ultimately it is up to the owner to decide where to put the lights and how many to install. We always recommend that you temporarily attach the lights to your bike using painter's tape or something similar, to make sure you get the look you want. You can also use a 9v battery, attach it to a strip and move around the bike to see how it will look. It won't be as bright but it will give you a good idea. Below are some typical locations where we install our LED lights on motorcycles. Again, these are just suggestions.

**Tank:** Our Cut-N-Click LEDs will mount on the inside wall/tunnel of the fuel tank and shine down onto the motor. Our LOW PROFILE LEDS will mount flat on the bottom of the tank and pour light over the motor. Measure your tank to see what will fit.

**Horn and Breather:** Use shorter pieces on the inside of the horn (left side) and breather backplate (right side). If your bike is different you may need to get creative to light the motor. To hide the wire run it up the backside of the horn and breather bracket.

**Oil/Battery Box:** One strip will often fit the box behind the engine. Should be a 6 or 9 LED segment. Align it to light the chrome on the rear of the engine or down onto the transmission below.

**Ground Effects:** Use a longer LED strip on the frame below the engine. Place it slightly inward so a jack or trailer loading won't damage the strip. Some riders choose not to light the ground and will use this piece elsewhere to light the bike. **FOR TRIKES:** Install additional segment under the bike towards the rear to carry the under-glow lighting effect to the rear of the trike. You can also install a segment across the rear above the exhaust tips.

**Saddlebag/Rear Lighting:** Measure the bag support frames to see what will fit. Mount the LED strips slightly inward on the frame to light the wheel, pipes and ground below. If there are no saddlebags, you may be able to install the lights inside the rear fender or under the rear fender struts or swingarm.

**Front Wheel:** Depending on your bike set-up, your bike will have single or twin disc brakes up front. Mount one wheel light to the inside of each caliper. Align them to light the wheel as you like. Run the power leads up the brake lines and back to the battery.

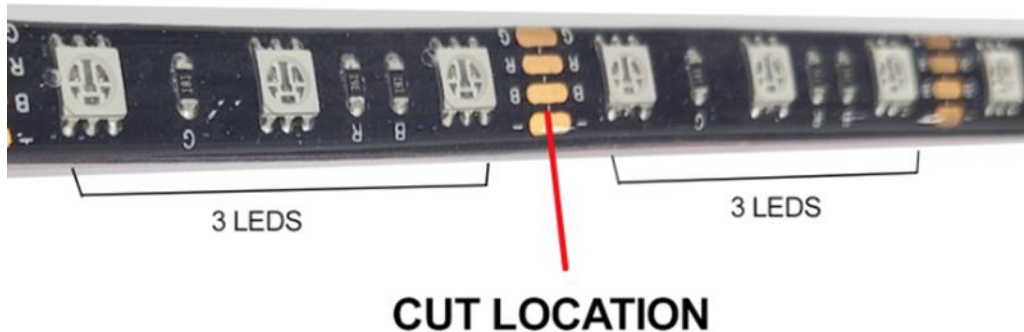
**LED Controller:** If you purchased an LED controller, where you mount the LED controller will depend on your bike. In many cases the LED controller can be mounted under the seat for easy access to the battery. That may not be possible particularly with newer bikes that often cram electronics in that space. In those cases, we will typically mount the LED controller in the driver's side saddle bag; assuming of course the bike has a saddle bag. Wherever you decide to mount the controller, it needs to be in a location that is a) dry and b) has sufficient air flow so the controller doesn't over-heat.

# Cutting Your LED Light Strips

## Cutting the LOW PROFILE LED STRIP

Our LOW PROFILE LED STRIPS are clusters of 3 LEDs.

## HI-INTENSITY SURFACE MOUNTED LED STRIPS



The LED strip can be cut one time on the copper solder pad where indicated; between the cluster of 3 LEDs. Important to cut in the center of the copper pads. Once cut, the end must be sealed using silicon, liquid electrical tape or even heat shrink to stop water intrusion from damaging the strip.

It is important to cut in the correct location. Cutting incorrectly could damage your lights and is not covered by the warranty. See image for correct location.

Note: Once you cut the wire it is important to slide a small piece of heat shrink tubing over the cut end and shrink it with a hair dryer or heat gun to seal the end. This will prevent moisture from getting into the cut end and shorting out the strip. If you are using the entire piece you may want to cut off the one end of the wire leads. In this case you should not cut too close to the strip. Allow about 1" from the end of the strip to make the cut. It is important to heat shrink this cut as well.

## Cutting the Cut N' Click LED Strip

Our Cut N' Click LED strips come with 13 – clusters of 3 LEDs for a total of 39 lights. These strips can also be used as one long strip. Note that the LED lights on these light strips are directional – they shine in one direction. When laying out your project be sure to configure these light strips accordingly. Once they are attached with the tape and promoter they are not easily removed without damage.

It is important to cut in the correct location. Cutting incorrectly could damage your lights and is not covered by the warranty. See image for correct location. These strips also have a small image of a scissors to indicate where to cut. When cut, they will have a minimum of 3 LEDs and 1 connector plug for power.



## Attaching Your LED Light Strips

### Things to keep in mind when installing the LED Strip

The 3M adhesive we use on our light strips is SUPER strong. You do not need to press very hard to get them to stick. In fact, pushing too hard can damage the connector wires and LEDs embedded in the strip. Just a little light pressure is all it takes. Also, when affixing the light strip to the mounting surface DO NOT stretch, pull or twist the LED strip. For example, do not allow either the power lead cable or the entire roll of LEDs to dangle while you're working on mounting the strip. The PCB inside the LED strip is not built to withstand tension, twisting or bending. Simply unroll the LED strip in a straight line as you go lightly pressing the strip to the surface. The strip must be mounted flat against one contiguous mounting surface; in a straight line. Really important too that the entire strip be stuck to the mounting surface and that the power lead end of the LED strip be firmly secured to the mounting surface in some way (e.g. zip tie). Do not allow the power lead to hang free, dangle or to put tension on the LED strip itself. This is especially true on a motorcycle. If you do, the strip will almost certainly fail in the spot that isn't affixed firmly to the mounting surface. Do not mount the strip that spans multiple mounting surfaces. Do not attempt to mount the strip to follow a radius. The LED strip has to be mounted in a straight line and flat. Failing to follow these mounting instructions will almost certainly result in a damaged LED strip which is not covered under warranty. Following these installation instructions will result in trouble free operation of your lighting system for many years.

### Mounting Steps

- 1) Determine the length you need for each of your LED strips by holding them up to the surface where you plan on installing them. We have provided some suggested placement ideas earlier in this document. You'll want to make sure you have a good idea where the lights will be placed before proceeding.
- 2) Clean the mounting surface with the supplied alcohol towels first. Once the alcohol dries, use the supplied 3M adhesion promoter (aka 'primer') to prepare the surface where you'll be attaching the strips. The 3M adhesion promoter is used to enhance the adhesion strength of the 3M tape on the back of the light strips

and makes a permanent bond. YOU CANNOT SKIP THIS STEP. Always apply 3M Promoter to any surface Boogey Lights® LED strips will be mounted. Let the promoter dry 30-60 seconds first before proceeding.

- 3) For situations where you are affixing Boogey Lights® to a surface where heavy oils or grease are present, a "degreaser" solvent such as acetone may need to be used first. If you use acetone (or any other degreasing solvent) you must still apply the 3M Promoter. Acetone is not a replacement for promoter. In addition, if you use acetone to clean a heavy oiled or greased surface, you will still need to follow up with an alcohol cleaning to help ensure any residue or film from the acetone is removed. This is because acetone (and most other degreasing solvents) will thin the promoter as well as break down the adhesive in the tape greatly reducing the tape's stickiness. Any surface first cleaned with acetone must also be cleaned with alcohol and then thoroughly dried before painting on promoter.
- 4) We suggest you position the flexible strip before removing the tape backing. When ready, remove a small amount of tape backing from one end of the strip while holding it in position. Continue to peel it off and press as you go to ensure the tape doesn't stick prematurely to the wrong place.

The 3M Adhesion Promoter used will cause immediate and permanent adhesion on contact with the 3M tape so be sure to TAKE YOUR TIME. You must get it right the first time for a guaranteed trouble-free installation.

NOTE: While 3M states the promoter and tape combination will not harm painted surfaces, we do not recommend using the promoter on new paint jobs that are not fully cured or aren't at least six months old.

If you need to remove a light strip once placed, you can do so using a hair dryer/heat gun and carefully pulling the light strip off. We recommend using a hard plastic card or similar object (e.g. old credit card) to help pry the light strip off the surface to which it was mounted. If you have to remove the light strip for any reason, the 3M tape on the back of the light strip will not be reusable.

Clean up: 3M Promoter can be removed with isopropyl alcohol. Vigorous scrubbing may be required.

The 3M adhesive tape on the back of Boogey Lights® LED stripes are one-use only. If you apply them to a surface that has not been properly prepared, the holding power of the 3M adhesive tape will be greatly diminished perhaps making the light strip unusable. If you take the time to properly prepare the surface in accordance with our instructions here, you won't have any problems mounting your LEDs.

## Additional Resources

- Product Page: <https://www.boogeylights.com/motorcycle-led-kits/>
- How to Videos: <https://www.boogeylights.com/how-to-videos/>
- Troubleshooting: <https://www.boogeylights.com/trouble-shooting-guide/>
- Installation Resources: <https://www.boogeylights.com/installation-resources/>
- How to Bench Test: <https://docs.boogeylights.net/?wpdmdl=1305>
- Amperage Data: <https://docs.boogeylights.net/?wpdmdl=1137>
- Cutting Your LEDs: <https://docs.boogeylights.net/?wpdmdl=964>
- GEN2 LED Controller Wiring Diagrams + Operating Info: <https://docs.boogeylights.net/?wpdmdl=1163>
- GEN2 RF Wireless Remote Operating Info: <https://docs.boogeylights.net/?wpdmdl=1164>
- GEN2 Bluetooth APP Operating Info: <https://docs.boogeylights.net/?wpdmdl=1169>
- GEN2 Bluetooth APP Quick-Start: <https://docs.boogeylights.net/?wpdmdl=1167>

## Support

- Phone: 800.847.1359 (M-F, 9-6 Eastern)
- Text: 859.955.8155
- Open a Support Ticket: <https://www.boogeylights.com/email-us/>
- Online: 24/7 resources at <https://www.boogeylights.com/installation-resources/>
- How to Make a Warranty Claim: <https://www.boogeylights.com/make-a-warranty-claim/>

## Warranty

The Boogey Lights® warranty requires an original sales receipt from Boogey Lights or an authorized dealer. It covers product replacement only, not labor or other costs. Register your purchase at:

<https://www.boogeylights.com/warranty-registration/>. Full details: <https://www.boogeylights.com/warranty/>.